

## AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

35. (CURRENTLY AMENDED) A method for ~~transforming a tissue of corn~~  
producing a corn plant comprising the steps of:

- (a) co-cultivating an immature embryo from said tissue at a temperature of about 15°C to ~~about 22°C~~ about 21°C with *Agrobacterium* capable of transferring at least one genetic element to said tissue to produce an infected embryo;
- (b) culturing the infected embryo on a medium comprising an antibiotic to produce a resulting tissue;
- (c) culturing said resulting tissue on a medium comprising a selective agent;
- (d) selecting transformed tissue having Type II callus; and
- (e) regenerating transgenic plants from said Type II callus.

36. (PREVIOUSLY PRESENTED) The method of claim 35, wherein said temperature is about 19°C.

37. (CURRENTLY AMENDED) A method for ~~transforming a tissue of corn~~  
producing a transformed corn plant comprising the steps of:

- (a) co-cultivating an immature embryo from said tissue with *Agrobacterium* capable of transferring at least one genetic factor to said tissue to produce an infected embryo, wherein said *Agrobacterium* is taken from *Agrobacterium* stock about 0.5 to about 5 days after rescue from frozen glycerol stocks;
- (b) culturing the infected embryo to initiate callus on a medium comprising an antibiotic;
- (c) culturing the resulting callus tissue on a medium comprising a selective agent;
- (d) selecting transformed callus tissue having Type II callus; and

(e) regenerating transgenic plants from said ~~growing~~ Type II callus.

38. (PREVIOUSLY PRESENTED) A method for transforming a line of corn comprising the steps of:

(a) co-cultivating an immature embryo from said line with *Agrobacterium* capable of transferring at least one gene to tissue of said line to produce an infected embryo;

(b) culturing the infected embryo to initiate callus on a medium comprising an antibiotic and a monosaccharide sugar;

(c) culturing the resulting callus tissue on a medium comprising a selective agent;

(d) selecting transformed callus tissue comprising growing Type II callus; and

(e) regenerating transgenic plants from said growing Type II callus.

39. (PREVIOUSLY PRESENTED) The method of claim 38, wherein said monosaccharide sugar is selected from the group consisting of glucose, maltose, lactose, sorbitol and mannitol.

40. (PREVIOUSLY PRESENTED) The method of claim 38, wherein said monosaccharide sugar is glucose.

41. (PREVIOUSLY PRESENTED) The method of claim 38, wherein the concentration of said monosaccharide sugar is from 5 g/L to 30 g/L.

42. (CURRENTLY AMENDED) A method for ~~transforming a tissue of corn~~  
producing a transformed corn plant using *Agrobacterium* comprising the steps of:

(a) initiating co-cultivation of an immature embryo from said tissue with *Agrobacterium* capable of transferring at least one genetic factor to said tissue to produce an infected embryo;

(b) applying heat shock treatment during said co-cultivation;

(c) culturing the infected embryo to initiate callus on a medium comprising an antibiotic and glucose;

(d) culturing the resulting callus tissue on a medium comprising a selective

agent;

- (e) selecting transformed callus tissue having Type II callus; and
- (f) regenerating transgenic plants from said Type II callus.

43. (PREVIOUSLY PRESENTED) A method for transforming a line of corn using *Agrobacterium* comprising the steps of:

- (a) co-cultivating an immature embryo from said line with *Agrobacterium* capable of transferring at least one gene to tissue of said line to produce an infected embryo;
  - (b) culturing the infected embryo to initiate callus on a medium comprising an antibiotic;
  - (c) culturing the resulting callus tissue on a medium comprising a selective agent or a combination of antibiotic and selective agent;
  - (d) selecting transformed callus tissue comprising growing Type II callus; and
  - (e) regenerating transgenic plants from said Type II callus,
- wherein exposure to said antibiotic is increased over two or more passages on the medium of at least one of step (b) or step (c).